

**RECORD OF DECISION
TELEPHONE FLAT GEOTHERMAL DEVELOPMENT PROJECT
ON
FEDERAL LEASES CA12370, CA12371, CA12372, CA13803, CA21933, and CA2500**

**DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
ALTURAS FIELD OFFICE**

**DEPARTMENT OF AGRICULTURE
US FOREST SERVICE
MODOC NATIONAL FOREST**

**MODOC AND SISKIYOU COUNTIES
CALIFORNIA**

I. INTRODUCTION

In 1997, CalEnergy Corporation submitted a Plan of Operation and Special Use Application for the development of geothermal resources on and off Federal leases located within the Glass Mountain Known Geothermal Resource Area (KGRA). During the past three years, the Bureau of Land Management and the U.S. Forest Service, in cooperation and partnership with Bonneville Power Administration, and Siskiyou County Air Pollution Control District, have analyzed and disclosed the biological, physical, cultural and social impacts of the proposal. These impacts are documented in the *Telephone Flat Geothermal Development Project Environmental Impact Statement/Environmental Impact Report*. This is the Record of Decision on that proposal.

II. DECISION

After careful consideration of all perspectives and factors, balancing the need for renewable energy and the need to protect the visual and cultural values associated with the unique and highly significant historic properties in the Medicine Lake Caldera, we have concluded that the interests of the public would be best served by selecting the No Action Alternative. Therefore, it is our decision to deny CalEnergy Corporation's Plan of Operation and Special Use Application for Development, Injection, Utilization and associated ancillary improvements, such as roads and electrical transmission line for the Telephone Flat Geothermal Project (Project). The Project is described in detail in the Proposed Action Alternative of the Final Environmental Impact Statement/Environmental Impact Report (FEIS/FEIR).

This Record of Decision (ROD) is a joint Bureau of Land Management (BLM) and U.S. Forest Service document. For the BLM, this decision pertains to the following proposed activities:

1. well field and reinjection field development;
2. above ground pipelines; and
3. power plant.

For the Forest Service this decision pertains to the following proposed activities:

1. overhead electrical transmission line;
2. access roads; and
3. water well use and water well pipelines.

Authority

This decision is in accordance with the Geothermal Steam Act, The Federal Land Policy and Management Act, and the National Forest Management Act. The respective Agency decisions are consistent with the regulations for these Congressional acts.

III. ALTERNATIVES CONSIDERED

In response to public issues, the FEIS/FEIR documents the effects of three power plant alternative locations and two transmission line routes from each power plant location. Figures 2.2.10, 2.3.1 and 2.3.3 in the FEIS/FEIR display the general location of the power plant locations and associated well field/reinjection field. In regards to transmission line alternatives, there are two major routes analyzed. These are displayed in Figure 2.4.1 of the FEIS/EIR with the study area for each alternative being a 1000 foot wide corridor. The alternatives respond to the need to avoid the visual and noise impacts to the Medicine Lake area and to the Mt. Hoffman Released Roadless Area.

Proposed Action

Power Plant

The Telephone Flat project is located in Siskiyou County on federal lands that are managed by Modoc National Forest. The subject federal geothermal leases are within the Glass Mountain KGRA, which is managed by the Alturas Field Office of Bureau of Land Management. The project is to construct and operate a 49.9 megawatt geothermal power plant located approximately 1.5 miles east of Medicine Lake and within the Medicine Lake Caldera. Associated construction would involve 18 well pads, pipelines, an overhead transmission line, and access roads. The Proposed Action is defined in three phases: construction, operation and decommissioning. The construction phase will occur over a

three year period. The power plant is anticipated to operate for 45 years and would generate up to 49.9 megawatts of electricity. At the end of the 45 year operation phase, the decommissioning phase would commence.

Transmission Line

CalEnergy Corporation proposes to construct and operate a 230-kV overhead transmission line that would extend from the Telephone Flat geothermal power plant and connect to the agency selected transmission line route for the proposed Fourmile Hill Geothermal project. The FEIS incorporated by reference that portion of the Fourmile Hill transmission line route that would be identical for this Project. The transmission line would be a wood pole H-frame construction and extend for approximately 21 miles on National Forest System lands. The line would extend in a northerly direction from the power plant location and go east of Mt. Hoffman and bisect the Mt. Hoffman Released Roadless area. The Telephone Flat transmission line would then connect with the proposed Fourmile Hill route and continue in a generally eastward direction until it connects to the Bonneville Power Administration Malin-Warner 230-kV line.

CalEnergy also proposes to place an above ground temporary water line from the existing ground water well in the Arnica Sink area to the Project site. The Proposed Action includes the need for year-round access to the Project site for construction and operation of the geothermal facilities.

This alternative was not selected because the Telephone Flat transmission line would adversely impact:

- traditional cultural values and traditional cultural uses;
- visual quality of travel corridors around Medicine Lake Caldera area;
- Mt. Hoffman Released Roadless area;
- air quality as a result of construction activities; and
- noise levels during construction and operation activities.

Power Plant Alternatives

Two power plant alternatives are analyzed in the FEIS/FEIR. One site (Alternative Power Plant Site A) is located approximately 1/4 mile east of the Proposed Action and the other site (Power Plant Alternative B) is located 1/2 mile east of the Proposed Action site. These alternatives were not selected for the same reasons the Proposed Action was not selected.

Transmission Line Alternatives

An alternative transmission line route is analyzed in the FEIS/FEIR. This route goes east of the power plant location and through the Medicine Lake Managed Late Successional Area

(MLSA). This Alternative was developed to respond to the adverse impacts to Mt. Hoffman Released Roadless area. This Alternative avoids the area by locating the transmission line south of Lyons Peak and continues eastward until it intersects the COTP 500-kV transmission line. At that point it would run parallel to the 500-kV transmission line until it intersects the proposed transmission line for the Fourmile Hill project. This alternative was not selected because it would adversely impact the Medicine Lake Managed Late Successional Area.

No Action- (Environmental Superior Alternative/ FEIS/EIR)

The No Action Alternative would not approve the Project. The No Action Alternative is the environmentally preferred alternative because it would create no additional environmental impacts. The rationale for selection of this Alternative is discussed in Section V of this Record of Decision.

IV. ALTERNATIVES NOT CONSIDERED IN DETAIL

Alternatives that were Considered but Eliminated from Detailed Study included:

- Additional Alternative Power Plant Locations
- Additional Alternative Transmission Line Routes
- Alternative Power Generation Technology
- Air Cooled Heat Injection System
- Below Ground Geothermal Fluid Pipelines, and
- Buried Electrical Transmission Line

The FEIS/FEIR contains a detailed discussion regarding the rationale for dismissing these alternatives from detailed analysis. Following is a brief summary of that discussion:

Alternative Power Plant Locations: Concern was expressed about the proximity of the power plant to the seasonally occupied residential and developed recreational facilities near Medicine Lake. Two alternative power plant sites are analyzed in the FEIS/FEIR. Additional plant locations that were situated further from Medicine Lake were determined to be both uneconomical and technically infeasible and equivalent to the No-Action Alternative. Unlike oil and gas development, geothermal power development must be done near the well location. As the geothermal resource is transported via pipeline away from the wellhead, the efficiency of the operation decreases and the need for additional wells increases.

Alternative Transmission Line Routes: The primary objective of the transmission line is to connect the power generation capability at the proposed power plant to the Bonneville Power Administration (BPA) transmission line system. The nearest BPA connection is located east of the project area at the Malin-Warner 230-kV transmission line. The routes that are analyzed in

detail in the FEIS/FEIR are those that minimize the length of construction and reduce the impacts associated with construction, operation and maintenance of the line. Routes in a westward or southerly direction from the power plant were not considered in detail because the routes would require significantly more surface disturbance, would impact more environmentally sensitive areas, and would be more costly and not reduce the overall impacts associated with the transmission line.

Air-Cooled Heat Rejection System: This alternative, which allows for cooling of the waste water by air rather than by water, was not considered in detail because it would be an inefficient use of the geothermal resource, require additional well pads and generally create additional environmental impacts.

Underground Geothermal Fluid Pipelines: Since the pipelines contain the hot geothermal fluid, they will expand and contract. In order for the lines to be buried they would need to be contained in a large diameter facility. This would require additional ground disturbing activities and would limit the ability to maintain the pipelines and would potentially result in increased environmental impacts. Because of the increased environmental effects associated with burying the fluid pipelines, this alternative was not considered in detail.

Buried Transmission Line: Though technically feasible, buried transmission lines are extremely costly. The cost can be as much as 8 to 12 times that of an overhead transmission line. The significantly higher cost for construction was the primary reason for dismissing this alternative. CalEnergy has stated that the requirement to bury the transmission line would financially burden the Project to such a degree that the Project would be uneconomical and CalEnergy would not pursue development of the Project.

V. RATIONALE FOR THE DECISION

Concurrent with this decision, BLM and Forest Service are issuing a Record of Decision to approve the Fourmile Hill Geothermal Project. Each project is different in 1) environmental setting, and 2) the relative impacts within the respective environmental setting. The location of the Fourmile Hill project is on the northwest flank of the Medicine Lake Highlands, whereas the Telephone Flat project is located nearly in the center of the Medicine Lake Caldera in the Medicine Lake Highlands. The Caldera area is particularly sensitive and has traditionally been identified as a separate “management area” within the Medicine Lake Highlands. Activities within the caldera area that could potentially result in unacceptable impacts may be acceptable in other areas within the Medicine Lake Highlands.

Before describing in detail our joint rationale for denying the Telephone Flat Project, a brief description of the environmental setting of the Medicine Lake Caldera area and its environmental relationship to the entire Medicine Lake Highlands may be helpful.

Environmental Setting

The Medicine Lake Highlands is a broad shield volcano that is approximately 25 miles in diameter. The summit of this dormant volcano has collapsed resulting in the formation of a broad basin area,

approximately 12,000 acres in size, which is known as the Medicine Lake Caldera area. This area has a vastly different environmental setting than other areas in the Medicine Lake Highlands. Where the flanks of the Medicine Lake Highlands area are covered by a variety of continuous forested types, the caldera area is composed of diverse environments. For example, the only sizable amounts of surface waters in the Highlands are located in the caldera area. The largest, Medicine Lake, is located in the bottom basin and is the center of most of the recreation activities within Medicine Lake Highlands. Within the Caldera area, there are very recent lava flows, which are designated as Geological Special Interest Areas in the Modoc National Forest Land and Resource Management Plan.

A designated Managed Late Successional Area (MLSA), which is an area that is primarily managed as northern spotted owl habitat, is found within the Caldera area. The establishment of the MLSA was directed by the Record of Decision for *Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl*. That Record of Decision amended the Modoc National Forest Land and Resource Management Plan by requiring the Modoc National Forest to establish a MLSA for the three known northern spotted owl activity centers in the Medicine Lake Caldera area. In June 1998, the Forest completed this requirement by establishing three contiguous MLSA areas. The goal of the MLSA is to 1) maintain mature and old growth species habitat, and 2) to maintain biological diversity of native flora and fauna.

The Mount Hoffman released roadless area is located within the Medicine Lake Caldera area. This area is composed of approximately 10,800 acres of both unroaded forest area and recent lava flows.

In addition to the unique physical, biological and social environments, the Caldera area has been identified as a "site" that is eligible for nomination as a Traditional Cultural Properties District to the National Register of Historic Places. Though there are other individual locations within Medicine Lake Highlands that are also eligible for nomination, this area is the only location within the Highlands that is eligible as a district.

All of the above factors have historically identified the Medicine Lake Caldera area of Medicine Lake Highlands as being of greatest environmental importance within the Highlands.

This environmental distinction between the Medicine Lake Caldera area and the remaining portions of the Medicine Lake Highlands is documented in previous administrative actions and environmental documents. In 1962, in excess of 6,600 acres within the Medicine Lake Caldera were withdrawn from mineral entry as allowed for by the General Mining Laws. This decision was reviewed in 1982 and a recommendation was made to continue the mineral withdrawal for another 20 years. The only mineral withdrawal area in the Medicine Lake Highlands is located within the Medicine Lake Caldera area. Though the mineral report for the withdrawal concludes that there is a low potential for locatable mineral resources within the withdrawal area, as compared to a higher potential in other areas of the Highlands which are not withdrawn from mineral entry, the Forest Service recommended that the withdrawal be continued in order to ensure protection of the resources within the Caldera area.

In 1979, the Modoc National Forest completed the *Medicine Lake Planning Unit Land Management Plan* and associated Environmental Impact Statement, with the geographic area addressed in the planning unit nearly equivalent to the Medicine Lake Highlands. This Plan, though superseded by the current Modoc National Forest Land and Resource Management Plan, identified the Medicine Lake Caldera area as a separate management unit within the overall Medicine Lake Highlands. The Plan designated a geographic area that was identified as a Recreation Management area that is nearly identical to the Medicine Lake Caldera area. In addition, one of the management goals for the Medicine Lake Caldera area was to "... Design all management activities to meet or exceed established visual quality levels." This was the only unit within the Medicine Lake Planning Unit that identified that the entire unit area as needing to be managed for visual quality.

In 1984, the Bureau of Land Management and the Forest Service jointly issued a supplemental environmental assessment entitled *Environmental Leasing of National Forest System Lands in the Glass Mountain Known Geothermal Resource Area*. This document, which was prepared for the expansion of the Glass Mountain Known Geothermal Resource Area (KGRA) (i.e. Medicine Lake Highlands) and issuance of federal leases within the expansion area, stated that geothermal operations "... will diminish the recreation experience in the Medicine Lake Caldera area and to a lesser degree in the remainder of the study area." This statement acknowledges that similar activities will have different impacts depending on whether the activity is occurring within or outside the Medicine Lake Caldera area.

The 1984 geothermal leasing decision also placed surface use restrictions on those federal leases that surround Medicine Lake. The purpose of these lease stipulations was to protect the recreation values of Medicine Lake. This acknowledgement of the value of the recreation experience at Medicine Lake demonstrates that the recreation experience should not be jeopardized as a result of geothermal development.

The Modoc National Forest Land and Resource Management Plan, which was issued in 1991, identified the general area of the Medicine Lake Caldera as a Management Area, which is defined as a geographic land area with similar resources within the area. This separation of the Medicine Lake Caldera area within the greater Medicine Lake Highlands is indicative of the special resource concerns for this area. Thus, the location and the environmental impacts within the environmental setting, which includes the physical, biological, social and cultural environments of the two proposed geothermal projects, i.e. Telephone Flat and the Fourmile Hill projects, are key elements in the rationale for our decisions. The need to clearly identify the impacts of each project within the environmental setting of the project was the primary basis for preparing separate Environmental Impact Statements for each project.

Rationale

The rationale for the BLM and Forest Service decision for the Telephone Flat project is based on a combination of the following factors:

- 1) In regards to the activities the Forest Service would be authorizing, the current cultural and social values associated with the setting of the medicine Lake Caldera area exceed those values obtained by developing the geothermal power at Telephone Flat. Thus, the use of National Forest System lands for activities either outside the specific lease boundaries or in which the Forest Service is the Authorizing Officer is not in the public interest.
- 2) In regards to Forest Service approval of the Special Use Application, the location of the proposed overhead transmission line route(s) is inconsistent with the current Forest service policies and thus the application for the transmission line is rejected.
- 3) In regards to the Bureau of Land Management, the Plan of operation is inconsistent with the term and conditions of the geothermal leases.
- 4) In regards to the Forest Service decision, the Plan of Operation is inconsistent with the Modoc National Forest land and Resource Management Plan.

An expanded discussion of each factor appears in the following section. In addition, we have included the impacts of the Fourmile Hill Geothermal Project to illustrate the differences between the projects.

Factor 1: Cultural and Social Values exceed geothermal contribution

The Medicine Lake Highlands is a significant element of Native American culture. This use is associated with the "powers" provided by the area to the Native American practitioner. This use and value of the area is documented in the FEIS/FEIR. The Project would not preclude the right of individuals to practice their religion or deny physical access to the traditional cultural use sites; however, the Project will result in significant conflict with Native American use of the area.

In order to determine the extent of the impacts on cultural use in the area, the agencies undertook an extensive and exhaustive ethnographic study of the entire Medicine Lake Highlands. This effort included numerous meetings and discussions with tribal governments and tribal members of the Klamath Tribes, the Pit River Tribe, the Shasta Nation, and the Shasta Tribe Incorporated. The results of this effort identified numerous site-specific locations that are used by various tribal members as part of their cultural needs. The agencies evaluated the information and determined that the Medicine Lake Caldera area generally could be considered as eligible for nomination to the National Register as a traditional cultural property district. The area outside the Caldera contains sites that are also eligible for nomination; however, the evidence indicates that the highest value of the Medicine Lake Highlands is in the Caldera area. This determination was submitted to the Office of the National Register of Historical Places, referred to as the Keeper of the National Register. The Keeper's review of the data concluded that the area surrounding the Project does contain traditional cultural values for Native Americans to such a degree that the area would be eligible for formal nomination. Thus, the Medicine Lake area does significantly contribute to the Native American culture.

In discussing the specific impacts to the cultural sites within or outside the district, we believe it is our responsibility and obligation to avoid disclosing the exact location and uses of a particular area. Therefore our discussion is somewhat “programmatically” in nature, but we have carefully reviewed the data in reaching our conclusions.

The proposed Project is located just east of Medicine Lake. The lake, according to Native Americans, has spiritual powers and provides a healing to individuals. Though the FEIS/FEIR documents that implementation to the Project will not physically or biologically alter the current conditions of the lake, Native Americans state that implementation of the Project would result in the lake losing its spiritual and cultural value for the tribal members. The development of the subsurface geothermal waters would adversely affect the Native American perception of the spiritual qualities of Medicine Lake.

The FEIS/FEIR discloses that implementation of the Project would introduce visual and audible elements that are currently not present in the area. The power plant would be visible from certain vision quest sites that are used by tribal members for religious/cultural purposes. The visible intrusion would be of the cooling towers and the steam plumes when present. Besides being visible, power plant and well drilling operations would be audible to the users of these sites. These impacts will significantly degrade the current value of the cultural sites to the Native American practitioner.

During the Section 106 process, the State Historical Preservation Officer requested clarification on the exact extent and content of audible and visual intrusion that would occur to the user of the specific traditional cultural sites as a result of geothermal operations at the respective locations. The data was compiled for both the Telephone Flat and the Fourmile Hill projects. The data indicated that the Telephone Flat Project would be visible (power plant or night glow) from 6 sites, with all sites being in the traditional cultural property district and audible from 8 sites, with all being inside the district. As a matter of reference, the Fourmile Hill Project is visible from two sites, with one being in the cultural district and audible from one site within the traditional cultural property district.

Tribal members are also concerned about the impact to other biological and physical resources within the Medicine Lake Highlands. Though the FEIS/FEIR concludes that implementation of the project would not have a significant impact on these particular resources either individually or cumulatively, the mere alteration of the environment for industrial purposes would result in a potentially significant impact to the Native American user of the area.

After reviewing the FEIS/FEIR and subsequent documentation from the Keeper of the National Register of Historic Places, it is clear the Project would significantly impact the Native American culture that is associated with Medicine Lake Caldera area.

Social Aspects

The Medicine Lake Caldera area of the Medicine Lake Highlands is an area that is managed for the natural biological, physical and social attributes that are available to visitors to the area. During the last decade there has been an increased interest in visiting the area and using its numerous recreation opportunities. This increase can be attributed to the remoteness, limited development, and the general forested setting of the area.

The proposed geothermal development site will be an industrial complex within an area that currently does not have such activity occurring. Some of the aspects of the Proposed Action that would alter the use of the area are increased traffic, presence of hydrogen sulfide odor, noise from the well drilling and power plant operations, visual aspects of the power plant and steam plumes, visibility of the transmission line, night time visibility of the plant, winter passenger car access, and snow removal along snowmobile routes.

The Medicine Lake Caldera area has a use of approximately 240,000 Recreational Visitor Days (RVD). This use is primarily associated with the developed recreation opportunities provided at the numerous campgrounds surrounding Medicine Lake. The primary recreation opportunity outside the area is dispersed recreation. Though the actual numbers of RVDs outside the caldera area are not known, the entire Goosenest Ranger District, Klamath National Forest, has only 220,000 of RVDs associated with dispersed recreation.

During the construction of the facilities, there would be an increase in vehicular traffic in the general Project area. As documented in the FEIS/EIR, anticipated increase in traffic would be from the current eight vehicles during peak hours to 288 vehicles. Though a similar increase in vehicular traffic is expected from the Fourmile Hill Project, the access to that location would not be along primary recreation access routes as compared to the primary recreation routes that would be impacted by the Telephone Flat Project.

As discussed in the FEIS/FEIR, hydrogen sulfide gases and associated "rotten egg" odor would be detected by visitors and at residences in the Medicine Lake recreation area. This condition would occur during well drilling, well development, and plant operation. Though it is anticipated that the emission levels of the hydrogen sulfide gas from the operations would be below State and federal standards, the visitor to the area, as noted in the FEIS/FEIR would detect that "rotten egg" smell. The exposure to the "rotten egg" smell at the campground will reduce the recreation experience at the lake. In comparison, the hydrogen sulfide emission from the Fourmile Hill project is not expected to be detected at Medicine Lake.

In addition to the odor element, the FEIS/FEIR states that the user of the recreation facilities at Medicine Lake would on occasion be able to hear the drilling operations occurring at the well field. Though the visitor does experience non-forest noises such as generators and boat engines, the drilling noises would occur at hours when there are normally no such noises. This would again be a new intrusion into the recreation experience of the visitor. As with the odor element, the drilling noise from the Fourmile Hill project will be largely inaudible.

If the Project were implemented, the first view of the Medicine Lake recreation area to visitors as they enter the area along Forest Road 49 from the north, would be a broad view of a forested area, Medicine Lake, surrounding peaks, unaltered recent lava flows, and the cooling towers and steam plume from a geothermal plant. Though this latter item may be of value or interest to some visitors of the area, it is a view that is different than the surrounding areas and is not consistent with the current landscape of the area. Whereas the Telephone Flat project would be visible from a critical viewing point that is four miles from the Project location, the nearest critical viewing point of the Fourmile Hill Power plant is ten air miles from the Fourmile Hill location and is only partially visible from that site.

Currently there are no overhead electrical or other similar type of transmission lines in the Medicine Lake Caldera area. The presence of such a facility would be a change in the current landscape. As documented in the FEIS/FEIR, the transmission line would be visible to visitors as they access the area from the north.

If implemented, the Project would operate 24 hours a day. This would require night light for both safety and the need to monitor the facilities. As discussed in the FEIS/FEIR, there would be a visible glow from the power plant during night hours. Though the FEIS/FEIR described mitigation measures that would reduce the extent of the nighttime glow, the visibility of the glow is not eliminated. The nightglow from the power plant would alter the rural/forested setting of the Medicine Lake Caldera. Whereas the Telephone Flat night lighting operation would be visible at Medicine Lake, the nightglow from the Fourmile Hill project would not be visible from Medicine Lake.

During the winter months, portions of the Medicine Lake area are maintained for snowmobile use. The Forest Service, in partnership with the California Department of Parks and Recreation, maintains 260 miles of groomed trails in the area. Certain segments of the trail system are located in the Project area. Specifically, the current trail system traverses the well field as well as the primary access route to the facilities. Implementation of the Project would eliminate these segments as a result of either snow removal or snow melting around the above ground pipelines. In addition to the impacts associated with the snow removal, the Project would introduce vehicles into an area that under current conditions would not be present during winter months. This would be another alteration to impact the overall winter recreation experience that is currently available in the Project area.

Both the Fourmile Hill and the Telephone Flat projects would require winter access. The primary differences in winter snowplowing is that the Telephone Flat project would require snow removal on designated trails in the well field as well as access routes. The Fourmile Hill project will not require snow plowing along designated groomed trails.

In summary, the proposed Project would result in sights, sounds, odors and physical obstructions that would collectively detract from the visitor's experience in the Medicine Lake area. This potential change to the remote rural setting of Medicine Lake Caldera would be an unacceptable loss of a social value.

Geothermal

The need to develop renewable energy sources within the United States is of great importance and is a long standing federal policy. The reduction in air emissions, relative to fossil fuels, is well documented in the FEIS/FEIR as well as other federal policy statements.

The proposed project could provide up to 45MW (48MW gross with 3MW for operational use at the site). This electrical generation capability could provide electrical service to approximately 45,000 residences. In regards to air emissions, a typical electrical power-generating source, such as natural gas, will emit approximately 30 times as much carbon dioxide than that of geothermal power generation.

The national benefit from the development of the geothermal resource at the Project does not warrant the potential loss of social and cultural values that would occur if the Project were implemented.

Public Interest in Regards to National Forest System Lands

As discussed in the above items, approval of the Proposed Plan of Operation would not be in the public interest. In reviewing any activity that the Forest Service will be authorizing, the agency must consider the public interest in its decision. Specifically, as specified in Forest Service regulations for occupancy and use of NFS lands, the authorizing officer must consider the public interest in approving or rejecting special use applications. The review should consider both the activities that are being authorized and any connected actions. Thus, the authorization for road use and water wells is denied since the activities that are connected to these uses are not in the public interest.

Factor 2: Location of Overhead Transmission Line

The FEIS/FEIR disclosed the impacts of two alternative transmission line routes. Both these alternatives considered the impacts of the construction, operation and maintenance of any overhead transmission line. The FEIS/FEIR also disclosed the impacts of the necessary road construction associated with the transmission line operation. The two alternatives impacted either the Mount Hoffman Released Roadless (MHRR) area or the Medicine Lake Highlands MLSA.

The critical issue associated with placement of transmission lines in MHRR is the effects of roads and timber removal in an area where similar activities have not occurred. In regards to road construction within a released roadless area, the Chief of the Forest Service has issued a moratorium on all new road construction activities in released roadless areas. This moratorium is an interim step until the Forest Service issues a final policy regarding activities within released roadless areas.

The current moratorium does not apply to released roadless areas that are located on National Forest System lands in which Forest Land and Resources Plans were amended by the Record of Decision for *Management of Habitat for Late-Successional and Old Growth Forest Related Species Within the*

Range of the Northern Spotted Owl (Northwest Forest Plan). A portion of the Modoc National Forest is subject to that Record of Decision. Specifically, a major portion of the Medicine Lake Highlands, including the MHRR, is within that geographic area. The Record of Decision does require the completion of a watershed assessment prior to any activities within released roadless areas subject to the Northwest Forest Plan. The purpose for conducting a watershed assessment is to ensure that proposed activities are consistent with the objectives for the area, as provided for in the Northwest Forest Plan. The *Medicine Lake Highlands Area Watershed Analysis*(MLWA) identified one element of the desired condition for the MLWA to be maintaining functional and sustainable Late Successional Habitat (LSH). As identified in the MLWA, the area is below acceptable acreage of LSH. The proposed transmission line route would remove 8 to 10 acres of potential LSH located in the MHRR area. Therefore, the effects of construction of the transmission line route in the MHRR would be inconsistent with the objectives for vegetation management within the MLWA area.

This inconsistency, combined with the public comments requesting the need to preserve the current values of the MHRR area, causes the Forest Service to conclude that the location of the transmission line within the Mt. Hoffman Released Roadless Area would be not compatible with current land uses or in the best interest of the public.

With respect to the alternative that would impact the MLSA, the FEIS/FEIR states that approximately 15 acres of suitable habitat for northern spotted owl in the MLSA would be disturbed. The FEIS/FEIR stated that this could potentially be significant or adverse. The FEIS/FEIR identified mitigation measures that would reduce the potential impacts to “less than significant level” but there still may be adverse impacts. The Regional Ecosystem Office, which provides interagency direction for activities within the Northwest Forest Plan area, has issued direction that activities that are proposed in Late Successional Reserves must be designed and mitigated to a condition that is neutral or beneficial to the creation and maintenance of these areas. Removal of approximately 15 acres of suitable habitat for northern spotted owl would not be either neutral or beneficial to the species.

A third alternative route was considered. This route would go west from the power plant site and connect with the proposed transmission line at the Fourmile Hill power plant location. The primary reason this route was not selected was the visual impacts of the transmission line on Medicine Lake. In response to the need to consider transmission line routes that would not impact the MMRR area or the MLSA and not create additional significant impacts, the Forest Service proposed a buried transmission line that would traverse from the Telephone Flat Project to the Fourmile Hill project. CalEnergy has stated that the cost of burying the line for this proposal would make the project economically infeasible and they would not proceed with the Project.

The current Forest Service policy regarding the review of Special Use Applications establishes a screening process for application review. The Special Use Application for the overhead transmission line was submitted to the Forest Service on November 18, 1998. On November 30, 1998, the Forest Service issued amended regulations regarding the use and occupancy of National Forest Systems lands. Specifically, the amended regulations allow the authorizing officer to reject Special Use Applications in

which the proposed use would not be consistent or compatible with the purpose for which the lands are managed, or with other uses. The proposed transmission lines would not be consistent with the current land uses in the Medicine Lake Caldera. To the north of the Project is the Mount Hoffman Released Roadless area, to the east and south of the project area is the MLSA and to the west of the project area is Medicine Lake.

Therefore, the Special Use Application for the 230-kV overhead transmission line is rejected.

Factor 3 Not Consistent with Lease Stipulations

Federal leases CA12370, CA12371, and CA12372, contain specific provisions with which the leaseholder is obligated to comply in order to be authorized to develop the federal geothermal resources. Specifically the leases contain the following provisions:

1. The leases are subject to all provisions of the Geothermal Steam Act and to all implementing regulations.
2. Section 18 (ANTIQUITIES AND OBJECTS OF HISTORIC VALUE) which states “The Lessee shall immediately bring to the attention of the Authorized Officer any antiquities or other objects of historic or scientific interest, including but not limited to historic or prehistoric ruins, fossils or artifacts discovered as a result of operations under this lease, and shall leave such discoveries intact. Failure to comply with any terms and condition of preservation of antiquities may constitute a violation of the Antiquities Act (16 U.S.C. 431-433).

Item 1- Compliance with Regulations

The federal regulations 43 CFR 3272.13(a) require that Bureau of Land Management review Plans of Utilization in accordance with 43 CFR 3200.4(i), which requires that the lease holder comply with any applicable laws and regulations. In reviewing Special Use Applications, the Forest Service must comply with its rules and regulations regarding use and occupancy of National Forest System lands.

As discussed in Factors 1 and 2, this Record of Decision denies the use of National Forest System lands for the construction, operation and maintenance of an overhead transmission line and other activities associated with the Plan of Operation. As described in this ROD, issuance of a special use permit would not be consistent with Forest Service regulations. Since the Forest Service has denied the authorization as provided for in its current regulations, the leaseholder has not complied with applicable laws and regulations. Therefore, the BLM is denying the Plan of Operation.

Item 2-Antiquities Act Compliance

These leases were issued in 1982. The National Environmental Policy Act (NEPA) document for the leases, entitled, *Environmental Assessment for Geothermal Leasing, Medicine Lake Planning Unit*, identified the need to do additional cultural resource surveys and identify sensitive sites which would not be disturbed. At the time of issuance of the leases, the main cultural resource was archaeological sites and the need to preserve cultural sites was the clear intent of the lease term. Additionally, the lease term requires the completion of cultural surveys to determine the location of the cultural resources.

The 1984 *Supplemental Environmental Assessment, Geothermal Leasing of National Forest System Lands in the Glass Mountain Known Geothermal Resource Area*, further defines the cultural resources in the lease area to be protohistoric, historic, and modern American religious sites and states that consultation with local Native American groups would be needed. The EA states that the BLM will consult with the State Office of Historic Preservation to ensure compliance with Section 18 of the lease terms. The intent of Section 18 is to ensure the cultural values of the area are not destroyed as a result of the geothermal operation.

As discussed under Factor 1, Medicine Lake Highlands is of critical importance to Native American culture. By virtue of its location within Medicine Lake Caldera, implementation of the Project would significantly impact Native American use of the area and ultimately that element of the culture would be lost to future generations.

In order to determine if there were mitigation measures to reduce the adverse effects, BLM and Forest Service undertook an extensive and exhaustive analysis of this issue. The approach was twofold. One approach was to meet with various tribal members and governing bodies to identify the specific conflict and determine if the Project could be modified or if there were appropriate mitigation measures that could be implemented. Tribal consultations involved the Pit River Tribe, the Klamath Tribes, the Modoc Tribe of Oklahoma, the Shasta Tribe Inc., and the Confederated Bands of the Shasta and Upper Klamath River Indians. This process occurred over a four year period and involved more than 30 meetings. Section VIII of this Record of Decision provides a summary of those meetings.

The other approach, as previously referenced, was to do a comprehensive ethnographic study of the area for the purpose of identifying specific locations that are used for traditional cultural practices. The information was obtained through oral and written testimony by tribal members. This information was then verified by a field review of the sites with representatives of tribal groups and agency members. The objective of this process was to identify mitigation measures that could be implemented that would reduce conflict with the Project and the Native American use.

The result of these efforts did not identify mitigation measures or project modification that would reduce the impact to less than significant levels. The only effective mitigation measure for many Native American participants was the selection of the No Action Alternative. Thus, consultation has not proven to be an effective mitigation measure.

As stated in a letter from the Advisory Council on Historic Preservation (ACHP) to the Chief of the Forest Service, "The proposed project will have substantial impacts on important historic properties". In addition, the State Historic Preservation Officer, in a letter to the Modoc Forest Supervisor stated, "... the evidence clearly indicates that the values that account for the significance of the [traditional cultural property] TCP(s) will be severely compromised if, from the user's perspective, the undertaking creates conditions that unreasonably burden or that altogether prevent continuing traditional uses of the area."

In a letter dated April 18, 2000, the ACHP further advised that "...The Telephone Flat Project is located within a Traditional Cultural Properties district, eligible for inclusion in the National Register of Historic Places. Because of the direct effects of the proposed project on this important historic property, we recommend the Forest Service and Bureau of Land Management give serious consideration to denying approval of any plan of operation for this project." A similar letter was received from the State Office Of Historic Preservation, dated May 5, 2000, informing the BLM and Forest Service that the "...undertaking would have an almost continuous, direct and highly adverse effect on Native American use of these historic properties."

Without the ability to mitigate the Project so as to not significantly impact the Native American culture, the only appropriate avenue for preserving this culture of the area is to deny the development of the Telephone Flat Project.

Factor 4 Not Consistent with the Modoc Forest Plan

The National Forest Management Act requires that all projects that are approved by the Forest Service be consistent with respective Forest Plans. If projects are not consistent, the project must be either modified or denied. The Forest Standards and Guidelines (S&G) in the Modoc Forest Plan require protection of cultural properties. Specifically the Plan states, "... (S) Conserve properties that have been designated on, or are eligible for designation to, the National Register of Historic Places."

As described in the previous Factors, the Project would result in visual, olfactory and audible intrusions to Traditional Cultural Properties that would not conserve the values of these properties. Thus, implementation of the Project would be inconsistent with the Modoc Forest Plan Standards and Guidelines for Cultural Management.

The basis for the Forest Plan Standards and Guidelines is found in the National Historic Preservation Act (NHPA), as amended in 1988. This Act directs federal agencies to preserve and conserve the intangible elements of our cultural heritage and recommend ways to preserve, conserve and encourage

the continuation of the diverse traditional prehistoric, historic, ethnic and folk cultural traditions that underlie and are living expressions of our heritage.

The Forest Plan direction is further clarified in Presidential E.O. 13007, which directs federal agencies to preserve and protect traditional cultural properties. Approval of the Project will result in adverse impacts to the use of the Traditional Cultural Properties and thus would not preserve or conserve these sites.

As previously discussed, the only identified decision that would conserve the identified Traditional Cultural Properties is selection of the No Action Alternative.

The Modoc National Forest Land and Resource Management Plan does state "...that other management activities should not preclude geothermal development." When this Management Direction was included in the Forest Plan, the Forest Service did not foresee future plan amendments that would provide for conflicting management direction. The Northwest Forest Plan Record of Decision amended the Forest Plan by requiring the establishment of suitable habitat for the northern spotted owl. As previously stated, the requirement has contributed to the decision to deny the Telephone Flat Plan of Operation.

Summary of Rationale

Both individually and cumulatively these factors indicate against the proposed development. Therefore, our decision is to deny CalEnergy Corporation's Plan of Operation and Special Use Application. Though the NEPA process and consultation with other federal, state and tribal governments identified means to mitigate certain aspects of the Project, the selection of the No Action Alternative was the most effective measure to eliminate the impacts on the cultural and social environments in the Medicine Lake Caldera area.

VI. PUBLIC INVOLVEMENT

As part of the initial phase of the environmental analysis for the FEIS/FEIR, a Notice of Intent was published in the Federal Register May 20, 1997. In addition, a notification letter was distributed to over 800 agencies, American Indian groups and members of the general public. Press releases were also distributed to local newspapers regarding the proposal and the scoping process. Public scoping meetings were held at five different locations between June and July 1997. Approximately 600 comment letters were received during the public scoping period.

More than 600 copies of the Draft EIS/EIR were distributed in May 1998 to interested parties who had requested copies of the document or were known to be interested in geothermal development in the Medicine Lake Highlands. The document was available for a 93-day public review period until September 29, 1998. Four public meetings were held to receive comments on the Draft EIS/EIR in

July 1998. A total of 1,700 comments were received on the Draft EIS/EIR. In addition there were numerous meetings with regulatory agencies to discuss comments on the Draft EIS/EIR.

Approximately 700 copies of the FEIS/FEIR were distributed to interested parties and agencies. A 30-day notification of the availability of the FEIS/FEIR began March 5, 1999 and ended April 5, 1999. Notices of the availability of the FEIS/FEIR were distributed to local newspapers and federal offices.

VII. GOVERNMENT TO GOVERNMENT CONSULTATION

The Forest Service and the BLM conducted an extensive tribal consultation process for the two geothermal projects. The affected tribes were notified of the projects by the USFS and BLM after receipt of the Plan of Utilization for the projects. Over 30 meetings were held with tribal members. These meetings were for the purpose of requesting protocol for the consultation process, tribal issues and concerns with the geothermal projects, presentation of the content of the draft and final environmental documentation prior to public issuance of those documents, review and comments on the environmental documents as well as the ethnographic report, and finally meetings between the respective federal decision makers and tribal government officials regarding the tribal concerns with the projects. The following is a list of those meetings:

Date	Tribe(s)	Purpose of Meeting
October 27, 1995	Klamath Tribes and Shasta Tribe	To review the proposed Plan of Utilization
December 7, 1995	Klamath Tribes and Shasta Tribe	To discuss the NEPA and consultation process for the geothermal project(s)
April 15, 1996	Pit River Tribe	To discuss issues with geothermal project
April 19, 1996	Pit River Tribe	To meet with tribe representatives and introduce project proponent
June 13, 1996	Klamath Tribes	Meeting with Heritage and Cultural Committee to discuss issues and concerns with project.
July 10, 1996	Klamath Tribes	Follow-up to June 13 meeting
July 12, 1996	Pit River Tribe	Meeting with tribal members to discuss issues with the projects
September 21, 1996	Pit River Tribe	Conducted site visited with tribal members
June 5, 1997	Klamath Tribes	Meeting with tribal members to discuss ethnographic report
June 17, 1997	Klamath Tribes	To discuss environmental justice issues
June 20, 1997	Pit River Tribe	Discussed with tribal governmental representatives the ethnographic report, environmental justice issues, and the environmental documentation

July 2, 1997	Pit River Tribe	Meeting with Tribal Council to discuss the geothermal project
August 6, 1997	Klamath Tribes	Meeting with Cultural and Heritage Committee to discuss adequacy of the Fourmile Hill DEIS
September 9, 1997	Klamath Tribes	Meeting with members of the Executive Committee and federal decision makers regarding issues with the project.
September 20, 1997	Pit River Tribe	Site visit tour with tribal members
October 3, 1997	Pit River Tribe	Consultation protocol for future consultation on the geothermal projects
March 17, 1998	Pit River Tribe	A meeting to review environmental document prior to public release.
April 1, 1998	Klamath Tribes	Meeting with Executive Committee to discuss the ethnographic report, the DEIS and consultation.
April 10, 1998	Pit River Tribe	Similar to the April 1, 1998 meeting with the Klamath Tribes.
May 12, 1998	Klamath Tribes	Confidentiality of sacred sites identified in the ethnographic report.
September 16 1998	Klamath Tribes	Meeting between Executive Council and federal decision makers
October 6, 1998	Klamath Tribes	A field visit with representatives of the Cultural and Heritage Committee and federal agencies
March 5, 1999	Pit River Tribe	A meeting with federal decision makers and tribal government representatives to discuss issues with the geothermal project.
March 9, 1999	Klamath Tribes	A meeting with federal decision makers and the Executive Committee to discuss issues with the Project
March 13, 1999	Shasta Nation	A meeting between elected tribal government official and federal decision makers
May 21, 1999	Pit River Tribe	Federal decision makers from BLM, FS, and BPA meeting with Tribal Council to discuss concerns with Project
July 15, 1999	Klamath Tribes	Field review of proposed geothermal projects with new members of the Executive Committee
February 10, 2000	Pit River Tribe	BLM and Forest Service Decision Makers and Tribal Council and members met to discuss pending decision on the geothermal projects

February 11, 2000	Shasta Tribe Incorporated	BLM and Forest Service Decision Makers and Tribal Council and members met to discuss pending decision on the geothermal projects
February 12, 2000	Shasta Nation	BLM and Forest Service Decision Makers and Tribal Council and members met to discuss pending decision on the geothermal projects
February 18, 2000	Klamath Tribes	BLM and Forest Service Decision Makers and Tribal Council and members met to discuss pending decision on the geothermal projects

In addition, the record indicates extensive correspondence between tribal governments and the respective federal agencies.

VIII. GOVERNMENT CONSULTATION

U.S. Fish and Wildlife Service

The U.S. Forest Service and the U. S. Fish and Wildlife Service have completed the formal consultation process in accordance with Section 7 of the Endangered Species Act. The results of the process were the issuance of a formal Biological Opinion of impacts to threatened and endangered species. That document concluded:

1. Likely to adversely affect the bald eagle as a result of transmission line collision in the area of Highway 139,
2. Not likely to adversely affect the northern spotted owl or the bald eagle at Medicine Lake (as a result of air emission deposition on the prey base at Medicine Lake), and
3. No affect on the federally listed endangered Shasta crayfish, endangered short nose sucker, endangered Lost River sucker, endangered American peregrine falcon, endangered marbled murrelet, and northern spotted owl critical habitat.

IX. ADMINISTRATIVE REVIEW

Bureau of Land Management

Within 30 days of receipt of this decision, an adversely affected party has the right of appeal to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations at Title 43 Code of Federal Regulations 4.400. Follow the procedures as outlined in the enclosed Form 1842-1, Information on Taking Appeals to the Board of Land Appeals. Within 30 days after filing an appeal, a Statement of Reasons must be provided to the Board of Land Appeals, listed in Item 3 on the form. In

addition, please provide the Alturas Field Office with a copy of the Statement of Reasons. The appellant has the burden of showing that the appealed decision is in error.

Forest Service

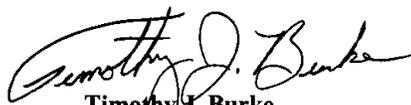
The decision is subject to appeal pursuant to 36 CFR 215. It is essential that the written notice of appeal be filed with the Appeal Deciding Officer within 45 days from the publication of a legal notice in the Modoc County Record or the Siskiyou Daily News. File notices of appeal with: Regional Forester, USDA Forest Service, 1323 Club Drive, Vallejo, California, 94592. Notices of appeal must meet the specific content requirements of 36 CFR 215.14. Persons wishing to participate must meet the requirements of 36 CFR 215.11.

X. CONTACT PERSON

For further information concerning this Project or decision, please contact:

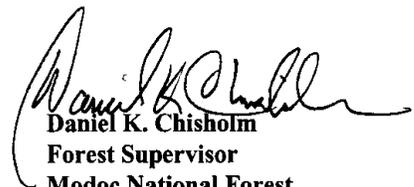
Randall M. Sharp
Project Coordinator
Modoc National Forest
800 W. 12th Street
Alturas, CA 96101
(530) 233-8848

XI. SIGNATURE AND DATE



Timothy J. Burke
Field Manager
Alturas Field Office
Bureau of Land Management

Date 5/31/00



Daniel K. Chisholm
Forest Supervisor
Modoc National Forest
U.S. Forest Service

Date 5/31/00